

REMARKS

Claims 1-23 and 25 are pending in the application.

Claim Rejections - 35 U.S.C. § 102

(a) Claims 1, 5, 22, and 23 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Chen (USP 4,914,731). This rejection is respectfully traversed.

In the Office Action, the Examiner states that Chen discloses, in Figs. 3 and 7, a reflector (40) being formed independently from the reflecting surface and provided above the reflecting surface e so as to surround said LED light source.

However, Applicants respectfully submit that one of the characteristic features of the present invention is to provide “a reflector, having a substantially rectangular shape in plan perpendicular to a light-emitting direction of the LED light source.” Applicants note that the “reflector, having a substantially rectangular shape” limitation was added in the Second Reply After Final filed on January 31, 2007.

In contrast, as shown in Fig. 3, the reflector (40) has a substantially circular shape in plan view and does not have a “substantially rectangular shape in plan view,” as recited in claim 1.

As stated in the Second Reply After Final, by providing a reflector having a substantially rectangular shape in plan perpendicular to a light-emitting direction of the LED light source, light can be more efficiently emitted as compared to a reflector having a circular opening.

To assist the Examiner in clearly understanding the claimed invention of the present application, diagrams showing the plan perpendicular to the light-emitting direction, and a flash

coverage of the lighting apparatus of the present invention as compared to that of the cited reference have been attached herewith.

Claims 5 and 22, dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 23 is allowable at least for the similar reasons as stated in the foregoing with regard to claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 6, 10, and 25 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Wu (USP 6,481,130). This rejection is respectfully traversed.

In the Office Action, the Examiner states that Wu discloses in Figs. 1A and 1B, a reflector (32), having a substantially rectangular shape, for reflecting ahead the light from said LED source.

Wu states, in col. 3, lines 48-55:

The reflector portion 32 attached to the printed circuit board 2 of LED linear array 14 . . . and forms an elongated channel 36 in which the LEDs 24 are disposed. The channel 36 has reflective side walls 38 that are curved to direct the light output 12 from the LEDs 24 out the channel top opening 39 and toward the display board sign 16.

As shown in Figs. 1A and 1B, the reflector portion 32 of Wu has a single pair of opposing reflective surfaces 38. However, Wu fails to disclose or suggest that the reflector portion 32 has “a substantially rectangular shape in plan view including two pairs of opposing reflective surfaces,” as recited in claim 6.

Claims 10 and 25, dependent on claim 6, are allowable at least for their dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections - 35 U.S.C. § 103

(a) Claim 2 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Koay et al. (US 2002/0047130). This rejection is respectfully traversed.

Claim 2, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 3, 4, 11, and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Kitano et al. (US 2003/0216151). This rejection is respectfully traversed.

Claims 3, 4, 11, and 12, dependent on claim 1, are allowable at last for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu in view of Kitano. This rejection is respectfully traversed.

Claim 7, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(d) Claims 8 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Wu in view of Sommers (US 2003/0180037). This rejection is respectfully traversed.

Claims 8 and 9, dependent on claim 6, are allowable at least for their dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(e) Claim 21 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen in view of Wu. This rejection is respectfully traversed.

Claim 21, dependent on claim 1, is allowable at least for its dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion


Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

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Respectfully submitted,

for By  (reg. # 40,417)
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Attachment: Diagrams showing the plan perpendicular to the light-emitting direction, and a flash coverage of the lighting apparatus of the present invention as compared to that of the cited reference

